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ABSTRACT

This report discusses a multiphase project to develop a user-oriented survey of prior accomplishments of graduate student applicants to aid admissions committees and graduate departments in the selection process. The three phases included: (1) development of three prototype instruments based on a checklist approach, a semi-documented approach, and an open-ended portfolio approach; (2) development of an instrument with a simplified format that contained positive features of the prototypes; and (3) pilot-testing of the simplified version, on newly enrolled graduate students, in 26 university departments (representing fields of English, biology and psychology). The third phase investigated the technical soundness and the feasibility of the instrument's use in the admissions process. Descriptive and correlational analyses of the responses to the inventory were conducted to describe characteristics of the students and the instrument, and to identify the most reliable clusters of items and indices of accomplishment. End-of-the-year follow-ups provided student accomplishment data for analyses of the short-term correlates of the measure. Faculty were interviewed regarding plausibility of the content of the instrument and the utility of various reporting formats. Student reactions were obtained by interview and by additional questions at the end of the inventory. The survey is contained in the appendix. (PN)

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GRE

GRADUATE RECORD EXAMINATIONS

FIELD TRIAL OF A USER-ORIENTED ADAPTATION OF THE INVENTORY OF DOCUMENTED ACCOMPLISHMENTS AS A TOOL IN GRADUATE ADMISSIONS

Leonard L. Baird

GRE Board Research Report GREB No. 81-1R
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EDUCATIONAL TESTING SERVICE, PRINCETON, NJ

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Abstract

A user-oriented application survey was constructed, building on the work of the project to develop an inventory of documented accomplishments. The survey was sent to a small group of interested departments. The experiences and reactions of these departments to the structured admissions survey were reviewed, and the survey revised accordingly. Eighteen departments in three universities agreed to use this revised instrument as part of their regular admissions procedures. They were subsequently polled for their reactions to the form's utility, content, interpretability, advantages over current procedures, and comparability with the personal statement. In general, it appeared unlikely that a single form could be developed that would have appeal and applicability across fields.

Foreword

This report has a long history. Some nine years ago the GRE Board Research Committee became interested in the proposition that it should be possible to do a better job of assessing significant out-of-class accomplishments of applicants to graduate school. While it was recognized that the undergraduate grade record and GRE scores have been and are likely to remain the principal quantified measures for assessing promise for graduate study, few would assert that these measures give a complete picture of the candidate. The GRE Board had experimented with several types of measures over the years but had not given specific attention to assessing personal achievements of students that are sometimes quite significant. Students may win prizes, receive appointments, publish their work, assume positions of leadership, or otherwise gain recognition for unusual competence and productivity.

Such accomplishments would not normally appear in an applicant's undergraduate transcript, nor are they assessed in any systematic way. The proposition was to develop some type of self-report instrument that would summarize and document significant accomplishments. The perceived need for such a mechanism stems from the suspicion that such accomplishments may not receive the attention they deserve. Certainly such accomplishments can be represented in references or by the student in filing an application for admission, but does this leave too much to chance? The undergraduate grade average and GRE scores have major importance in graduate admissions because they are quantified, standardized, and highly visible.

Further, there is concrete evidence that such measures are related to success in graduate study. If it were possible to demonstrate that significant accomplishments of students could be summarized on a standard instrument, and that such accomplishments provide additional valid information concerning a student's likelihood of success in graduate study, then several useful purposes might be served. Among these would be an improvement in selection of promising students, a beneficial broadening of the talent pool, and better means of recognizing achievements that deserve reward. Another important consideration was the hope that a broader range of demonstrably relevant talents might give some applicants (for example, minority students, older students) a better chance to put their best foot forward.

An instrument was developed and it proved quite serviceable for research purposes (Baird, 1979). The data gathered indicated that significant accomplishments of students do constitute useful additional information in appraising candidates for graduate study (Baird and Knapp, 1981). In theory, the effort was successful; in practice, there were substantial problems. The research instrument proved too detailed and cumbersome for routine use in graduate admissions. Among faculty there were strong differences of opinion as to the feasibility of any such standard instrument.

This report gives an account of a limited try with a much abbreviated questionnaire developed and used for experimentally by a group of graduate departments. The outcome reported here clearly indicates that the single questionnaire could not serve the purpose for different departments. An inventory that does justice to the types of information of interest to all departments includes much material irrelevant to individual departments. The abbreviated questionnaire could not overcome that obstacle, and the shortening may also have had the effect of appearing to trivialize some types of achievement.

Another practical problem may have had an important influence on the way graduate faculty and administrators assessed this inventory. Some departments and schools are very reluctant to make any additional demands on applicants. Another instrument may be seen as onerous to complete and also run the risk of causing some acceptable applicants to view their record and their chances of admission less favorably. Departments that are concerned about enrollment may therefore have seen such an instrument as working to their disadvantage.

In setting aside this work for now, the Research Committee has not changed its opinion regarding the relevance of an applicant's significant accomplishments in assessing promise for graduate study. It is apparent, however, that this approach to the problem is not likely to work. Individual departments might be able to improve their admissions process by developing application materials that instruct students more specifically as to what type of information is important to their candidacy. This report ends with some suggestions that might be useful in that regard.

Field Trial of a User-Oriented Adaptation of the Inventory of Documented Accomplishments as a Tool in Graduate Admissions

Introduction

A basic purpose of graduate admission procedures is to select students who will be likely to be productive, be creative, provide leadership, and make a contribution to their fields. Graduate schools have always given attention in the selection process to indications that students have made significant contributions in a field over and above academic qualifications. However, many admissions committees and graduate departments feel the need for a more systematic way to evaluate the accomplishments of students so they can select those who will be outstanding in graduate school and will eventually contribute most to the field. At the same time, aware of the changes in the nature of the applicant pool, they wish to have more appropriate selection procedures to evaluate the accomplishments of older students, students from nontraditional programs, and unique and unconventional students.

The purpose of the project reported here was to develop a user-oriented survey of the prior attainments of graduate school applicants that would obtain information to meet the needs just outlined in a more systematic and organized manner than is currently the case and that could be offered for use or modification by interested departments. The survey was to be based on the instrument in the project to develop an inventory of documented accomplishments (Baird, 1979).

The project to develop an inventory of documented accomplishments was a multiphase project designed to meet these needs by developing procedures to assess the accomplishments of applicants to graduate school. In the first phase, trial instruments were developed after thoroughly reviewing other attempts at assessing accomplishments and carefully considering the issues involved. Three prototypes were developed based on three approaches: a checklist approach (Holland, 1961), a semi-documented approach (Schultz & Skager, 1963), and an open-ended portfolio approach similar to that used by the Cooperative for the Assessment of Experiential Learning (Knapp, 1975). In the second phase, an instrument was developed that was designed to meet the operational and conceptual requirements of an inventory of documented accomplishments for graduate selection, using as many of the positive features of earlier approaches as possible and in as simple a format as possible. This version was reviewed by

a diverse group of people concerned with graduate admissions for the purpose of finding answers to the following questions:

(1) How open ended should the procedures be?
(2) How should the quality of accomplishments be evaluated?
(3) What should be the nature of the content?
(4) What is the best strategy for documentation?
(5) What is the best mode of delivery?

The final version represented the best balance we could devise among various answers to these questions. In the third phase, the material developed in phase two was pilot-tested in 26 departments that represented the fields of English, biology, and psychology. The major purpose of this phase was to investigate the instrument developed in phase two in terms of: (1) technical soundness, and (2) the feasibility of its use in the admissions process.

The departments were asked to administer the instrument to their newly enrolled graduate students. Straightforward descriptive and correlational analyses of the responses to the inventory were conducted to: (1) describe characteristics of the students and the instrument; and (2) identify the most reliable clusters of items and indices of accomplishment. Students were followed up at the end of their first year to assess their graduate school accomplishments and the relationship of these accomplishments to the students' previous attainments. This information provided data for analyses of the short-term correlates of the measure. In addition, faculty were interviewed to determine the plausibility of the content of the instrument and the utility of various reporting formats. Students' reactions to the inventory were obtained by interview and by additional questions at the end of the inventory.

The specific goals of phase three were to estimate the degree to which information about accomplishments prior to graduate school predict graduate school success, examine the possibility of streamlining the inventory, determine the best ways to administer and use the inventory, and examine the most useful ways of analyzing and interpreting students' responses and reporting the results. To what extent did this phase serve these purposes? The answers to this question, as reported by Baird and Knapp (1980), were as follows.

1. Did the survey assess students' significant attainments prior to graduate school in a comprehensive, concise, accurate and systematic way? The responses to the main part of the survey were plausible in the frequency of attainments, the differences between fields, their intercorrelations,

and the evidence supplied as documentation. Study of the character of the responses suggested that almost all students completed the survey conscientiously and completely. Together, these results suggested that the survey did gain information about many significant accomplishments, and that the inventory could provide a concise and accurate method for assessing pregraduate accomplishments. In addition, the free-response questions allowed students to present a great variety and depth of information about the accomplishments they felt were personally significant. Analyses of these free-response achievements suggested that two areas of significant student activity could be given greater emphasis in the inventory: work experience and academic experience broadly defined. Thus, it was decided that the inventory should ask more questions about these areas.

Related to the question of comprehensiveness, student responses to the evaluation items suggested that some students felt that the inventory emphasized quantity and tangible products rather than quality and depth, although the free-response questions about significant accomplishments were designed to allow students to explain the significance of their attainments. Others, however, felt that the inventory added to present information. Furthermore, faculty members who were interviewed also recognized that the inventory collects information systematically and organizes it in ways that increase its value for decision making. They also recognized that the inventory gave students an equal chance to describe themselves and their attainments. Thus, in sum, it appears that the inventory did meet this first purpose, even though further work could lead to improvements.

2. Did the inventory identify indicators of broader kinds of talent? The statistical results for both the items and four experimental scales indicated that they were basically unrelated to undergraduate grades. Thus, the inventory did provide systematic information about indicators of "non-academic" talents that might not appear in the ordinary transcript. Furthermore, the evidence provided by a short-term prediction study indicated that these indicators were correlated with the graduate school attainments of students, whereas undergraduate grades were not. Although this is undoubtedly partly due to the attenuation in the range of grades due to their use in selection, it is worth noting that undergraduate grades still correlated .30 with graduate grades, which also had relatively little variance. Although some of the graduate school attainments were fairly rare and the time span covered only the first year of study, the inventory predicted these attainments with moderate success.

3. Would the inventory supply information useful in the fair evaluation of applicants with special characteristics? In the development of the inventory, a strong effort was made to incorporate the revisions suggested by reviewers from various groups to make the content and phrasing as fair as possible. The results of the analyses of both the items and scale scores showed some differences between men and women students and among students of different ethnic backgrounds. However, in each case the groups "balanced out." Although men were high in the scientific and technical areas, women were high in the artistic and social service areas; although Whites were high in science, Blacks were high in social service and organizational activities. Further, students with different grades and students of different ages did not differ significantly on any of the scales. Finally, the differences between students with different personal characteristics were typically much smaller than the differences among the fields. This evidence suggested that the inventory provides an overall description of students that, taken as a whole, allows students with different characteristics to tell admission committees what they are good at and what they have done. The issue of fairness is very complex, and much work would be needed to show that the inventory is unbiased in every sense, but these results seem promising.

The more specific goals of the project also were generally met. A careful analysis of students' written responses to both the detailed questions and the free-response questions suggested that the students' self-reports were accurate. For example, when asked to provide documentation, students did provide sufficient information to allow a check on their responses. Although a complete check of students' responses was not conducted for reasons of cost, the character of their responses suggested that they were responding in good faith and as clearly as their understanding of the instructions allowed. That is, there seemed to be little exaggeration (e.g., no one claimed to have published an article in Atlantic magazine, but some said they had published an article in their college literary magazine). Although the inventory would have to be used in actual admissions situations and a study of the verification of students' claims conducted to provide a definitive answer, these results suggested that most students responded as accurately as they could.

The results also suggested that the inventory could probably be made more efficient and streamlined. First, certain achievements were so rare that the items about them could probably be eliminated. Further, some items were unrelated to any graduate school attainment and could probably be eliminated

on those grounds. In addition, some activities or products were so seldom entered in contests or sold or so seldom won prizes that detailed questions about these points may be unnecessary. It seemed likely that a fairly simple and easily completed form could be developed.

The results of the study were less clear as to the most appropriate administration and use of the inventory and the most useful ways of interpreting and reporting students' responses. Since the study was based on an examination of first-semester graduate students rather than actual applicants whose responses might be reviewed by admission committees, no hands-on data relevant to these goals were available. Consequently, we had to rely on our interviews with students and staff. As suggested in the description of the interviews in Baird and Knapp (1980), there was little consensus on any of these issues. It seemed clear, however, that all the groups were favorable to the basic ideas behind the inventory, although there was a diversity of opinion about how best to implement them. Additional work would be needed to work out the best conceptual and operational course of action in the future.

In summary, the basic purposes of this phase appeared to have been accomplished. A reasonably comprehensive, concise, and accurate method for assessing the pregraduate school accomplishments of applicants was developed. The method appeared to be fair, at least on initial indications, and to correlate with graduate school success, broadly defined. Student and staff comments resulted in a variety of suggestions for improvements.

Situation at the Beginning of the Current Project

At this point we had an instrument that had been subjected to numerous reviews by people with very different perspectives. It had been shown to organize needed information about graduate school applicants' previous accomplishments and to make those accomplishments significant in the admissions process. It had also been shown to provide information that usefully predicted later graduate school accomplishments. However, many questions remained about how to make it useful in the day-to-day work of the graduate admissions community and to make it helpful to applicants. What was the most logical next step to capitalize on what we had learned?

The comments of faculty suggested that they had reservations about the inventory, in some cases because it was unfamiliar, in

some cases because they did not see how it would fit into their normal procedures, and in some cases because they felt that it overlapped with their current procedures. Students made similar comments, particularly that it seemed to duplicate what they had reported on application blanks. However, both students and faculty recognized that it did bring forth information that was not often presented on application forms, organized it in helpful ways, and increased its significance. One way to capitalize on these merits was to change the focus of the inventory away from a research instrument to a supplement to current procedures by using its content and format to develop a survey that would more directly meet the needs of graduate admission committees in their day-to-day work. This would have the advantage of using what we had learned to add to familiar and accepted tools of graduate admissions. That is, since we have learned what some graduate admissions staff generally want to know about applicants, what some applicants want to tell admissions staff about themselves, and some of the information that is predictive of later graduate school attainments, we felt it should be possible to restructure the inventory as a tool for graduate admissions that: (1) includes appropriate content; (2) organizes it in helpful ways; (3) is based on a great deal of input from people involved in graduate admissions; and (4) is based on an extensive research project. The chief activity would be to make user-oriented modifications that would turn the research-based results of the inventory project into a form that would have wide acceptance. This acceptance would be strongest among departments that wish to consider the broad range of talent of their applicants, that hope to consider the special attainments of unconventional applicants, that would like to do so in a systematic way that would be fair to each applicant, and that want to help each applicant put his or her best foot forward.

How could this be done? The basic goal was to use the content and results of the three phases of the earlier project to produce an improved user-oriented version that would have broad coverage, based on the results obtained, and would be highly acceptable to departments. To do so, the original inventory needed to be revised in terms of what was then known and in terms of our understanding of what admission committees were looking for. Then, to be sure that such an admission instrument would be usable in regular admissions work, it needed to be tried out in a variety of departments to iron out any wrinkles of content or approach and to produce a final version.

Specifically, the work of this project was based on phase three and consisted of the following steps:

1. Streamlining the documented accomplishments inventory by eliminating rare and unimportant activities and questions about details of little significance as they were revealed in phase three. The instructions were also simplified.

2. Increasing the coverage of accomplishments and skills applicants may have gained as a result of employment, including technical skills, general qualities useful in their fields, and interpersonal skills.

3. Increasing the coverage of academic experiences, such as skill in research techniques, organizing ideas, writing, and working with other people.

4. Providing instructions and materials to help students identify, describe, and highlight the importance of their experiences and accomplishments.

5. Including a range of fields, such as professional fields, that might have somewhat different admissions practices (e.g., education, scientific-technical fields, or civil engineering).

6. Examining how the information is used in actual admission decisions (i.e., whether it plays a role and how large a role; whether it is particularly useful for certain kinds of applicants, such as borderline cases; and admission committee members' judgments of its value).

Developing New Forms

The first part of this project consisted of incorporating the improvements in the inventory that were suggested by the students, faculty, and administrative officers who reviewed the inventory and eliminating or changing the items and sections that the statistical analyses indicated did not contribute to the content or predictive validity of the inventory. Data we collected from faculty and student post-inventory surveys as well as debriefing interviews from phase three were used for instrument development and refinement. Faculty agreement on the content of items and student reaction to the items and procedures were the most important criteria to consider. For example, some items were psychometrically adequate but had questionable meaning or relevance. Some items contributed little to the internal consistency of the instrument or the item clusters within the instrument and yet were ranked by faculty as accomplishments that are significant indicators of success in a particular field. Other items were eliminated because students and faculty consistently reported them as

being troublesome or ambiguous. In brief, there was a reduction of items as a result of the analyses of student and faculty reactions to the instrument.

In addition to the analyses of faculty and student reactions, the analyses of actual response data were used in several ways. Accomplishments that were so rare and esoteric as to be important for very few individuals were eliminated. However, a few rare accomplishments, such as publishing a scientific article in a professional journal, that have obvious and high social or potential professional value or that were particularly important for a subgroup of students were retained.

Items that contributed most to the four clusters identified in phase three were retained though occasionally in a revised form. (The clusters were Literary-Expressive, Artistic, Scientific-Technical, and Social Service-Organizational Activity.) In addition, the inventory items that had the highest correlations with the criteria of first-year graduate school accomplishments were retained.

The coverage of the inventory was increased in the areas of work experience and academic experience. The students' descriptions of their most significant attainments suggested a variety of attainments in these areas. However, the character of their responses suggested that the focus should not be on specific accomplishments but on the skills to which the experiences led. As noted earlier, these often involved technical skills, problem-solving abilities, personal development, character traits, communication skills, and interpersonal skills. A format was developed from an examination of the students' responses that was intended to aid students in their attempts to describe the significance and relevance of their attainments. In the effort to expand the coverage of employment and academic experience, the advice of admissions committee members and academic advisors was sought.

Additional revisions led to instructions that focused on students' identification of skills gained through their experiences, questions that led to an explicit description of their attainments, and an analysis of the significance of these attainments.

The original form, developed as just described, was sent out to approximately 40 institutions. Although some of them were willing to use the inventory, the majority were not. Telephone interviews with the officials at these institutions indicated that they had a number of reservations about the inventory. Some were concerned about the length, some about the content, some about the basic approach. After considering

these concerns and reviewing them with researchers at ETS, we constructed a new inventory, partly more structured and partly more open ended. A brief checklist was constructed from the earlier form that was designed to jog the respondents' memories and to indicate the sort of specific accomplishments we were looking for. In addition, 10 questions were devised that asked the students to describe their attainments and skills in areas such as science, writing, and public service. These questions were open ended (see Appendix A) but were designed to guide the respondents to be specific about their accomplishments and their relationship to their graduate school goals.

The departments were encouraged to use the application inventory as an addition to their normal procedures. The administration of the survey was under local control, although guidelines for proper and effective use of the admissions inventory were sent with the materials.

It was expected that the inventory would appeal to the departments' admission committees partly because it obtained the information they often currently collect but in a more systematic and orderly way. The content had been reviewed by numerous people involved in graduate admissions including the Minority Graduate Education Committee of the GRE Board, various student groups, and an advisory committee that was specifically intended to reflect the diversity of graduate education. In addition, the entire project had been reviewed by the ETS Committee on Prior Review, which is concerned with the privacy and quality of data collected in ETS projects.

Sample and Procedures

The basic sample consisted of graduate school applicants. The students who asked for application forms were sent the revised instrument as part of the normal package of application materials sent out by the departments. These materials were returned to the departments so that the inventory could be used in their admission decisions.

The departments were supplied with all necessary inventory materials as well as guidelines, reporting forms, and instructions about how to coordinate the work and collect the data in ways that were efficient in terms of expense and time. The students' replies were returned to the departments.

Graduate deans in several universities were contacted to elicit their support in contacting specific programs. Eventually, 18 departments in three universities agreed to send out the forms with their application materials, and to use them along with their usual information in evaluating the preparation and

potential of the applicants. These departments had approximately 1,200 applicants, although the numbers at specific departments ranged from several hundred to less than 10. The forms were sent out during the academic year of 1982-83. The departments were surveyed in spring 1983 to answer six questions.

1. Generally, how useful did they find the form in admissions?

2. Was the content appropriate--was it too broad or too narrow?

3. Did they have any problems in interpreting the responses of applicants?

4. Did they feel that the form was sufficiently useful to justify its use on a regular basis?

5. How would they compare the form to the personal statement?

6. Did they have any suggestions for imprvoing the form?

In addition, telephone interviews were conducted to probe the experiences of the departments further.

Results of the Field Trial

The responses are summarized below around these six topics: general utility, content, interpretability, utility beyond current information, comparison with the personal statement, and suggestions for improvements.

General Utility. Most participating departments were in favor of the general idea of obtaining systematic information about the attainments of their applicants, but had concerns about the specific mechanism used. The departments recognized the importance of including information about the work, extra-curricular, and nonacademic accomplishments of applicants in admission decisions, and, in general, already had some current device to obtain this data. Reactions to the documented accomplishments instrument were very mixed ranging from "very useful" to "of no value." Most of these departments would probably need to be convinced to use the existing form on a regular basis.

Content. There was little agreement about the content of a general purpose instrument. Departments that emphasized the performing or plastic arts felt that the questions on the arts were not adequate to obtain the information they were concerned with, whereas other departments, especially those in the physical sciences, considered questions about the arts irrelevant and at

least a few spokespersons from these departments considered them to be "fun and games," unworthy of being asked of serious students in their fields. In general, the attitudes of the respondents reflected their fields. Those in the sciences wanted more details about their fields. One mathematics department head said he was interested in only two things beyond grades and GRE scores--had the applicant published an article in a mathematical journal and had the applicant worked with a professor the head knew or recognized. A department of music was interested only in grades and attainments in music. Only a few departments, typically those that were interdisciplinary, or those with many subfields such as psychology and education, were really interested in the broad scope of accomplishments included in the inventory.

Departments with many older students had mixed reactions to the form, some indicating that it was too heavily weighted toward the traditional younger graduate school applicant, and that more information about work experiences should be obtained.

Utility Beyond Current Information. As might be expected from the foregoing, there was a mixed reaction about the utility of the documented accomplishment form. The departments that are really interested in the sorts of things assessed by the form are already doing something to obtain the information, typically using a personal statement or application form specifically designed for that purpose. Departments that are not interested would not use the form anyway. Thus, those who might use the form feel they don't need it, and those who presumably need the form wouldn't use it. However, there were a few enthusiastic departments that would like to use the form, but in a modified version that meets their specific requirements.

Departments generally felt the form sufficiently supplemented their current procedures to warrant its regular use, but with qualifications, such as suggesting a form tailored to their departments as needed or one that would be appropriate in some areas or with some students.

Interpretability. Interestingly, no department reported any problems in interpreting the responses of applicants.

Comparison with the Personal Statement. The reactions of departments were again mixed. Some were quite favorable; for example, "First, the systematic approach is useful by jogging the person's memory regarding his or her activities. Secondly, outside interests (outside of a subject area) are important to faculty acceptance judgments, which may not be apparent from the personal statement." However, other departments were very satisfied with their current personal statements.

Suggestions for Improvements. There were a variety of suggestions for improvements, many of which have been noted in the previous pages, such as including more on employment experiences, more questions in the department's area of concern, and the like. One department suggested that the form be presented in a less formal and threatening format.

Discussion

What are the implications of these findings for the assessment of the skills and attainments of graduate school applicants? First, the disagreement about content suggests that there is no way to have a single form that would satisfy every department in every discipline. Given the vehemence with which some departmental spokespersons expressed their views, it even seems unlikely that different forms for broad areas of study, such as the physical sciences, the performing arts, and so on, would be acceptable, or that even discipline-specific forms would be widely used. For example, consider psychology: some departments are primarily experimental in their orientation, some are clinical, some are social. Even the departments that share a common orientation look for different things. For instance, a clinical program might emphasize individual therapy, community involvement, or research. In addition, many departments are generally satisifed with the personal statement and those that do not use the personal statement still look for certain attainments among their applicants that could be assessed by something like the personal statement.

All of this suggests that the only documented accomplishment forms that would be used by most of the departments in the study would be forms individually designed to meet their particular interests. Rather than attempt to develop broad scale inventories, then, a more reasonable strategy may be to develop guidelines for local development of accomplishment forms.

A tailored documented accomplishments form would represent, in a sense, a focused, structured personal statement. It would obtain information about the individual's qualities assessed in the personal statement but would do so in a systematic way.

Although it would be difficult to outline the content of such a guide at this point, it almost certainly would include elements such as the following:

--Defining the purpose of the survey; for example, whether it is to be used as a device to obtain information about the accomplishments and skills of all applicants, or whether its use would be limited to borderline cases.

--Obtaining the ideas of people in the department about appropriate content, establishing legitimacy for the form, and explaining its role as providing information beyond the transcript.

--Defining the skills or qualities about which information is desired. The skills identified as important by departments and students in this project and phase three of the documented accomplishments project would be a beginning point for this endeavor.

--Defining or locating "marker" accomplishments that have defined skills among previously successful students. Again, the accomplishments found to be important in this study and phase three would be useful.

--Writing instructions and questions for applicants. This might include explaining the admission procedures used by the department, describing kinds of students the department is looking for, and outlining the reasons the department is looking for such students. The instructions might also emphasize that the accomplishments survey is intended to provide applicants with an opportunity to tell the department about themselves and their special qualities.

This general approach seems, on the basis of the current project, to be the most sensible, and any further work should probably be along these lines.

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Appendix A

Application Survey

Dear Applicant:

In addition to your usual academic credentials, we are interested in your experiences and accomplishments beyond those that might appear on your transcripts. These may have occurred through work experience, special academic work, community service, work in organizations, etc. This form is intended to provide you with an opportunity to list and explain the significance of your experiences and accomplishments. There are two parts. The first is simply a checklist designed to jog your memory about things you may have done. The second asks for more detail about the kinds of experiences that have been found to be important for graduate work. Research has shown that these kinds of accomplishment predict accomplishment in graduate school, so we are interested in what you have done.

I. Please circle the number of the statements that describe something you have done. Please don't be discouraged by this list. Only an unusual student will have had very many of these experiences or accomplishments.

1. Built scientific equipment (laboratory apparatus, a computer, etc.) on my own (not as part of a course)
2. Was appointed a teaching or research assistant in a scientific field
3. Received a prize or award for a scientific paper or project
4. Gave an original paper at a convention or meeting sponsored by a scientific society or association
5. On my own (not as part of a course) carried out or repeated one or more scientific experiments, recorded scientific observations of things or events in the natural setting, or assembled and maintained a collection of scientific specimens
6. Author or co-author of scientific or scholarly paper published (or in press) in a scientific journal
7. Invented a patentable device
8. Member of honorary scientific society
9. Entered a scientific competition of any kind
10. Wrote an unpublished scientific paper (not a course assignment)
11. Served as a research or laboratory assistant either in college or outside of college
12. Active member of student groups
13. Elected as a <u>member</u> of a campus-wide student governing body, such as student council, student senate, etc.
14. Elected as an <u>officer</u> of a campus-wide student governing body or community group, such as student senate, charity volunteers, etc.
15. Appointed to one or more offices in an organization
16. Elected president of a class (freshman, sophomore, etc.) in any year of college
17. Elected as one of the officers--other than president--of a class in any year of college
18. Served on a student-faculty committee
19. Elected as an officer of a student social group or housing unit such as sorority, dormitory, pep club, etc.
20. Elected president of a "special interest" student club, such as psychology club, mountain climbing club, etc.
21. Received an award or special recognition of any kind for leadership
22. Held major responsibility for other persons (e.g., custodial care, emergency squad)
23. Supervised group of volunteers

24. Raised or managed money for organization or project

25. Organized a college political group or campaign

26. Worked actively in an off-campus political campaign

27. Won a prize, award, or other special recognition for scholarship

28. Had poems, stories, essays, or articles published in a public (not college) newspaper, anthology, etc.

29. Wrote one or more plays (including radio or TV plays) which were given public performance

30. Acted in a play

31. Held lead in play

32. Performed music publicly

33. Showed art work publicly

34. Won prize or recognition in music

35. Won prize or recognition for art work

36. Was feature writer, reporter, etc. for college paper, annual, magazine, anthology, etc.

37. Was editor for college paper, annual, magazine, anthology, etc.

38. Did news or feature writing for public (not college) newspaper

39. Had poems, stories, essays, or articles published in a college publication

40. Wrote an original, but unpublished, piece of creative writing on my own (not as part of a course)

41. Won a literary prize or award for creative writing

42. Systematically recorded my observations and thoughts in a diary or journal as resource material for writing

43. Member of student honorary group in creative writing or journalism

44. Held job that taught a skill important for graduate work in field

45. Received a job promotion for outstanding performance

46. Started own business

47. Received award or formal recognition for outstanding accomplishment in any field

II. This section describes various attainments which you may have. It is unlikely that you will have done something significant in every category, so read over the descriptions, and choose the ones that are particularly important to you. Then please provide details about your significant experiences and accomplishments following the instructions in each section.

1. Describe any scientific or scholarly writing you have done, its nature (class assignment, independent research collaboration with a faculty member, etc.), and the extent of its publication (never published, submitted for publication, published locally, regionally or nationally). Also describe the type of publication or journal in which it may have appeared.

2. Please describe any original literary or popular writing you have done (e.g., fiction, non-fiction, poems, plays); the circumstances of their production (class assignment, independent production, commissioned work, etc.); and any publication that may have resulted. Please describe the circulation (local, regional, national) and the nature of any publication (literary magazine, special interest magazine, popular magazine, college newspaper, etc.).

3. Please describe any literary or scientific contest in which you may have participated, the nature of your participation (entrant, judge, etc.), the area from which participants were drawn (local, state, regional, national), and any awards or recognition you may have received.

4. Please describe your role in any scientific project in which you may have participated (director, designer, technician, field worker, lab assistant, etc.), what the project was designed to accomplish, and its character (original experiment, replication of other research, part of research program in a job, etc.). Please describe specifically what you did (for example, computer programming, interviewing, statistical analyses, building equipment, operating equipment, analyzing specimens, etc.), and what the outcomes were (project report, journal article, etc.).

5. Describe the most important meetings of scholarly or scientific groups you have attended, their nature (local, state, regional, or national) and your role in these meetings (attended, discussant, secondary author of a paper, or first author of a paper).

6. Please describe any teaching experience you may have. Whom did you teach (primary school students, high school students, college students, adults, etc.), what did you teach, and for how long did you teach? Did you receive any formal recognition of your teaching (certificate, formal commendation, etc.)?

7. Please describe any community involvement you may have had. Please describe what your role was (organizer, member, service worker, etc.), the level of your responsibility (managed budget, served as vice president, etc.), the impact or results of your activities for the people you served, and the skills you believe you learned or exercised through your involvement.

8. Please describe any technical skills you may have (e.g., computer programming, intelligence testing, editing, spectographic analysis, proficiency in a foreign language, statistics, etc.). Describe where you learned them (course work, employment, etc.), and your estimate of your level of skill. Please note any formal certification of your level of skill (course completion, certificate, award, etc.).

9. If you have exercised considerable responsibility or leadership in some group or setting (club, employment, politics, etc.), please describe your role or position, the size and nature of the group and the level and character of the responsibility or leadership.

10. Please describe any other significant accomplishments or experiences that you feel show your involvement, independence, self-discipline, ambition, persistence, responsibility, or interest in your field. Also explain the pertinence of these accomplishments or experiences to your graduate school goals.